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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/635,067	08/05/2003	Jie Liang	TI-35033	1319
23494	7590	01/17/2007	EXAMINER	
TEXAS INSTRUMENTS INCORPORATED P O BOX 655474, M/S 3999 DALLAS, TX 75265			NGUYEN, KHAI MINH	
			ART UNIT	PAPER NUMBER
			2617	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)
	10/635,067	LIANG ET AL.
	Examiner	Art Unit
	Khai M. Nguyen	2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 05 August 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-31 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 05 August 2003 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 8/26/2004.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Awater et al. (U.S.Pat-7046649).

Regarding claim 1, Awater teaches a device (fig.1) comprising:

a first antenna (fig.1, IEEE 802.11(transceiver), abstract);

a second antenna (fig.1, Bluetooth (transceiver), abstract);

an antenna switching function communicatively coupled to the first and second antennas (fig.1, interoperability device (switching), col.6, line 58 to col.7, line 5);

a first wireless telecommunications function communicatively coupled to the antenna switching function (fig.1-2, interoperability device (switching)) (fig.1-2, col.3, line 10 to col.4, line 60);

a second wireless telecommunications function communicatively coupled to the antenna switching function (fig.1-2, interoperability device (switching)) (fig.1-2, col.3, line 10 to col.4, line 60); and

an arbitration function (interoperability device (switching)), communicatively coupled to the antenna switching function (interoperability device (switching)) and the first and second wireless telecommunications functions (fig.1-2, col.3, line 10 to col.4, line 60), and adapted to control access to the first and second antennas by the first and second wireless telecommunications functions according to a defined prioritization scheme (fig.1-2, col.3, line 10 to col.4, line 60).

Regarding claim 2, Awater teaches the device of claim 1, wherein either or both of the first or second wireless telecommunications functions may require simultaneous access to both the first (IEEE 802.11) and second antennas (Bluetooth) (fig.1-2, col.3, line 10 to col.4, line 60).

Regarding claim 3, Awater teaches the device of claim 1, wherein the first wireless telecommunications function comprises a wireless LAN technology (fig.1-2, IEEE 802.11 and Bluetooth, col.2, line 61 to col.3, line 6).

Regarding claim 4, Awater teaches the device of claim 3, wherein the wireless LAN technology comprises a wireless LAN according to IEEE 802.11g standards (fig.1-2, IEEE 802.11).

Regarding claim 5, Awater teaches the device of claim 3, wherein the wireless LAN technology may require simultaneous access to both the first and second antennas (fig.1-2, col.3, line 10 to col.4, line 60).

Regarding claim 6, Awater teaches the device of claim 1, wherein the second wireless telecommunications function comprises a Bluetooth wireless technology (fig.1-2, Bluetooth).

Regarding claim 7, Awater teaches the device of claim 1, wherein the antenna switching function is implemented as an independent structure (interoperability device (switching)) (fig.1-2, col.3, line 10 to col.4, line 60).

Regarding claim 8, Awater teaches the device of claim 1, wherein the antenna switching function is integrated with the arbitration function (interoperability device (switching)) (fig.1-2, col.3, line 10 to col.4, line 60).

Regarding claim 9, Awater teaches the device of claim 1, wherein the arbitration function is implemented as an independent structure (interoperability device (switching)) (fig.1-2, col.3, line 10 to col.4, line 60).

Regarding claim 10, Awater teaches the device of claim 1, wherein the arbitration function is integrated with at least a portion of either the first or second wireless telecommunications functions (interoperability device (switching)) (fig.1-2, col.3, line 10 to col.4, line 60).

Regarding claim 11, Awater teaches the device of claim 1, wherein the arbitration function is adapted to control access by forcing radio silence at least one of the first or second wireless telecommunications functions (interoperability device (switching)) (fig.1-2, col.3, line 10 to col.4, line 60).

Regarding claim 12, Awater teaches the device of claim 1, wherein the defined prioritization scheme comprises an access contention function (interoperability device (switching)) (fig.1-2, col.3, line 10 to col.4, line 60).

Regarding claim 13, Awater teaches the device of claim 12, wherein one of the first or second wireless telecommunications functions is adapted to trigger the access contention function (interoperability device (switching)) (fig.1-2, col.3, line 10 to col.4, line 60).

Regarding claim 14, Awater teaches a method of providing simultaneous operation of disparate wireless telecommunication technologies within a single device, comprising the steps of:

providing a device having a plurality of antennas (fig.1, IEEE 802.11 and Bluetooth (transceivers), abstract);

providing an antenna switching function communicatively coupled to the plurality of antennas (fig.1, interoperability device (switching), abstract, col.6, line 58 to col.7, line 5);

providing a first wireless telecommunications function communicatively coupled to the antenna switching function (fig.1-2, interoperability device (switching)) (fig.1-2, col.3, line 10 to col.4, line 60);

providing a second wireless telecommunications function communicatively coupled to the antenna switching function (fig.1-2, interoperability device (switching)) (fig.1-2, col.3, line 10 to col.4, line 60);

providing an arbitration function communicatively coupled to the antenna switching function (fig.1-2, interoperability device (switching)) and the first and second wireless telecommunications functions (fig.1-2, col.3, line 10 to col.4, line 60);

providing a defined prioritization scheme (fig.1-2, col.3, line 10 to col.4, line 60); and

utilizing the arbitration function to control access to the plurality of antennas (fig.1, IEEE 802.11 and Bluetooth (transceivers), abstract) by the first and second wireless telecommunications functions according to the defined prioritization scheme (fig.1-2, col.3, line 10 to col.4, line 60).

Regarding claim 15, Awater teaches the method of claim 14, wherein the antenna switching function allocates access to an antenna by the first or second wireless telecommunications function under control of the arbitration function (interoperability device (switching)) (fig.1-2, col.3, line 10 to col.4, line 60).

Regarding claim 16 is rejected with the same reasons set forth in claim 2.

Regarding claim 17 is rejected with the same reasons set forth in claim 3.

Regarding claim 18 is rejected with the same reasons set forth in claim 4.

Regarding claim 19 is rejected with the same reasons set forth in claim 5.

Regarding claim 20 is rejected with the same reasons set forth in claim 6.

Regarding claim 21, Awater teaches the method of claim 14, wherein the step of providing an arbitration function further comprises providing hardware implementing an arbitration function (interoperability device (switching)) (fig.1-2, col.3, line 10 to col.4, line 60).

Regarding claim 22, Awater teaches the method of claim 14, wherein the step of providing an arbitration function further comprises providing software implementing an arbitration function (interoperability device (switching)) (fig.1-2, col.3, line 10 to col.4, line 60).

Regarding claim 23, Awater teaches the method of claim 14, wherein the step of utilizing the arbitration function to control access further comprises utilizing the arbitration function to disable radio transmission of at least one of the first or second wireless telecommunications functions (interoperability device (switching)) (fig.1-2, col.3, line 10 to col.4, line 60).

Regarding claim 24, Awater teaches the method of claim 14, wherein the step of providing a defined prioritization scheme further comprises providing an access

contention function (interoperability device (switching)) (fig.1-2, col.3, line 10 to col.4, line 60).

Regarding claim 25, Awater teaches the method of claim 24, wherein one of the first or second wireless telecommunications functions may initiate the access contention function (interoperability device (switching)) (fig.1-2, col.3, line 10 to col.4, line 60).

Regarding claim 26, Awater teaches the method of claim 24, wherein the step of providing an access contention function further comprises providing a bias mechanism (interoperability device (switching)) (fig.1-2, col.3, line 10 to col.4, line 60).

Regarding claim 27, Awater teaches the method of claim 26, wherein the step of providing a bias mechanism comprises providing a bias in favor of the first wireless telecommunications function (interoperability device (switching)) (fig.1-2, col.3, line 10 to col.4, line 60).

Regarding claim 28, Awater teaches the method of claim 26, wherein the step of providing a bias mechanism comprises providing a bias in favor of the second wireless telecommunications function (interoperability device (switching)) (fig.1-2, col.3, line 10 to col.4, line 60).

Regarding claim 29, Awater teaches the method of claim 14, wherein the step of providing a defined prioritization scheme further comprises providing first priority to speech communications over one of the wireless telecommunications functions (interoperability device (switching)) (fig.1-2, col.3, line 10 to col.4, line 60).

Regarding claim 30, Awater teaches the method of claim 14, wherein the step of providing a defined prioritization scheme further comprises providing for simultaneous transmission by the first and second wireless telecommunications functions (interoperability device (switching)) (fig.1-2, col.3, line 10 to col.4, line 60).

Regarding claim 31, Awater teaches the method of claim 14, wherein the step of providing a defined prioritization scheme further comprises providing for simultaneous reception by the first and second wireless telecommunications functions (interoperability device (switching)) (fig.1-2, col.3, line 10 to col.4, line 60).

Conclusion

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khai M. Nguyen whose telephone number is 571.272.7923. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph feild can be reached on 571.272.4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Khai Nguyen
Khai Nguyen
Au: 2617

JEAN GELIN
PRIMARY EXAMINER

Jean Gelin

1/3/2007